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09/995,301	11/27/2001	Jonathan R. Andersh	57205US002	9002

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EXAMINER

CHAVIS, JOHN Q

ART UNIT PAPER NUMBER

2191

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,301

Applicant(s)

ANDERSH ET AL.

Examiner

John Chavis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-35 is/are rejected.
7) ☐ Claim(s) 36-37 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Parson et al. (6,053,947).

Claims

1. A system comprising:
a set of objects encapsulating
respective computational
models

that simulate a manufacturing
process, wherein each of the
models receives one or more
inputs values and computes one
or more predicted output
values based on the
simulation; and

Parson

See the title, abstract
and note that
encapsulation is an
inherent feature of
object oriented
programming, see page 175
of Microsoft Computer
Dictionary and page 31,
fig. 2-1 of Just Java and
Beyond, 3rd Ed., both
attached for definition
purposes only. Note also
the definition of the
term "object" on page 285
of Que's Computer
Dictionary.

See col. 2 lines 23-34,
lines 51-59, col. 3 lines
52-65 and note that
simulation, by definition
computes predicted values
by "simulating the
circuit using the model,
see col. 4 lines 26-40.

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a software program executing within a computer operating environment and having an embedded control module to invoke the computational models in parallel

See col. 5 lines 35-49, which indicates that one or **more functions having** the highest priority are executed. Also, note in col. 9 lines 36-51 that the simulation model supports nesting of scheduler models (i.e. in parallel) and bundling (parallel) their contents within the scheduler.

to produce the predicted output values computed by the encapsulated computational models.

See the definition of simulation on page 437 of Microsoft Computer Dictionary, and note the term imitation implies that predicted values are computed.

2. The system of claim 1, further comprising a model aggregator to receive input values from the control module and to distribute the input values to the objects...

See col. 4 lines 2-26. See also col. 5 lines 12-17, in which the dataflow and scheduler is considered to provide the Control and distribute functions.

3. The system of claim 2, wherein each model includes at least one input and at least one output, and further wherein the model aggregator stores configuration data mapping a set of input slots to the inputs of the models...

See col. 5 lines 4-17.

4. The system of claim 3, wherein the configuration data maps a single input slot to multiple inputs of different models.

" " "

5. The system of claim 2,

See col. 4 lines 7-13.

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wherein the model aggregator receives predicted output values from the objects... and communicates the predicted output values to the control module.

6. The system of claim 5, wherein the control module... displays the predicted output values from the computational models simultaneously...

See again the distribute function in the cited portion above. See also col. 15 lines 61-63 and 38-41, in which results (predicted output values) are displayed via a user interface all leaf models on its dataflow path (simultaneously).

7. The system of claim 1, wherein the control module receives input from a user and communicates the inputs to the object models as inputs to the computational models.

See claim 17 lines 15-20.

8. The system of claim 1, wherein the software program comprises process management software to manage a manufacturing process.

See col. 6 lines 30-39, which provides for customizing circuits to manage a (manufacturing process)

9. The system of claim 8, wherein the control module receives measured process data and communicates the measured process data to the objects as inputs to the computational models...

" " "

10. The system of claim 2, further comprising a configuration module to select a set of ...models in response to user input, and to direct the model

See col. 5 lines 59-col. 6 line 10.

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aggregator... to create the set of objects to encapsulate the computational models.

11. The system of claim 10, wherein the configuration module, the control module and the set of objects comprises reusable software components conforming to a software component architecture.

See the rejection of claim 8 above.

12. The system of claim 1, wherein the objects comprise reusable model software components arranged as one or more dynamic linked libraries (DLLs) invoked by the control module.

See col. 6 lines 46-59.

13. The system of claim 1, further comprising one or more dynamic linked libraries (DLLs) that implement:
the set of objects; the control module;
a configuration module invoked by the software program to configure the set of objects in response to user input; and
a model aggregator to receive input values and commands from the control module and to distribute the input values and commands to the objects for invoking the computational models.

See the cited portions above.

In reference to claims 14 and 34, see the rejection of claim 1.

Claim 15 is rejected as claim 12.

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As per claim 16, see the rejection of claims 5, 6 and
9.

The features of claims 17-18 are taught via claims 10-
11.

In reference to claims 19, see the rejection of claims
5-6.

Claim 20 is rejected as claim 11.

As per claim 21, see the rejection of claim 13.

The features of claim 22 are taught via claims 10.

In reference to claim 23, see the rejection of claim
12.

Claim 24 is rejected as claim 8.

As per claim 25, see the rejection of claim 1.

The features of claim 26-28 are taught via claims 12.

In reference to claim 29-30, see the rejection of claim
10.

Claim 31 is rejected as claim 8.

As per claim 32, see the rejection of claim 12.

The features of claims 33 are taught via claims 5-6.

In reference to claim 35, see the clocked and scheduler
model in col. 6 lines 40-45.

3. Claims 36-37 are objected to as being dependent upon a
rejected base claim, but would be allowable if rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


5. Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Chavis whose telephone number is (571) 272-3720. The examiner can normally be reached on M-Tue & Th-F, 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'John Chavis', with a stylized flourish at the end.

John Chavis
Primary Examiner AU-2124